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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/988,796	11/20/2001	Takashi Mizukami	32178-176680	9115

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EXAMINER

BRUCKART, BENJAMIN R

ART UNIT	PAPER NUMBER
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2155

DATE MAILED: 09/07/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/988,796

Applicant(s)

MIZUKAMI, TAKASHI

Examiner

Benjamin R Bruckart

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 November 2001.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-17 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-17 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 20011120.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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Detailed Action

Claims 1-17 are pending in this Office Action.

Information Disclosure Statement

The information disclosure statement filed on 11/20/01 has been considered.

Foreign Priority

Receipt is acknowledged of papers submitted on 11/20/01 under 35 U.S.C. 119(a)-(d), which papers have been placed of record in the file. Attention is directed to the fact that the date for which foreign priority is claimed is not the date of the filed application acknowledged in the oath or declaration. The priority date of 2/28/01 is given priority.

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 13 recites the limitation "the user." There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 1-5, 7-10, 13, 15-17 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent No. 6,671,737 by Snowdon et al.

Regarding claim 1, a node information management system including a plurality of nodes each of which is connected through a network so that they can communicate with each other (Snowdon: col. 6, lines 60-66) and a node information collecting apparatus connected to each of said nodes so that it can communicate therewith in order to collect predetermined information regarding each of said plurality of nodes (Snowdon: col. 11, lines 65- col. 12, line 8),

wherein each of said nodes comprises:

a node information memory unit which stores the predetermined information regarding the node itself which was formed by the node itself every formation of said predetermined information (Snowdon: col. 11, lines 53-63; identifies the node and its properties);

a node information transmitting unit which supplies said predetermined information stored in said node information memory unit of the node itself to another

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node connected adjacently to the node itself through said network (Snowdon: col. 11, lines 53-63; exchanges messages with other nodes); and

a backup node information memory unit which stores said predetermined information supplied from said node information transmitting unit of said another node as backup information (Snowdon: col. 11, lines 53-63; memory for storing the exchanged messages).

Regarding claim 2, a system according to claim 1, wherein said node information collecting apparatus collects said predetermined information stored in said node information memory unit of each of said nodes from each of said nodes (Snowdon: col. 11, lines 65- col. 12, line 8), and with respect to said node from which said predetermined information cannot be collected, said node information collecting apparatus collects said predetermined information stored in said backup node information memory unit of said another node adjacent to said node (Snowdon: col. 9, lines 64- col. 10, line 9; third and first nodes aren't in contact so third nodes get information about first node from second nodes).

Regarding claim 3, a system according to claim 1, wherein said node information transmitting unit of each of said nodes supplies said predetermined information regarding another node stored in said backup node information memory unit of the node itself to other nodes excluding said another node so as to be stored into said backup node information memory units of said other nodes (Snowdon: col. 11, lines 53-63).

Regarding claim 4, a system according to claim 3, wherein said node information collecting apparatus collects said predetermined information stored in said node information memory unit of each of said nodes from each of said nodes (Snowdon: col. 9, lines 64- col. 10, line 9), and with respect to said node from which said predetermined information cannot be collected, said node information collecting apparatus collects said predetermined information stored in said backup node information memory unit of said

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another node except for said node (Snowdon: col. 9, lines 64- col. 10, line 9; col. 4, lines 30-38).

Regarding claim 5, a system according to claim 1, wherein said node information collecting apparatus collects said predetermined information stored in said node information memory unit of each of said nodes and said predetermined information stored in said backup node information memory unit from each of said nodes (Snowdon: col. 4, lines 30-38).

Regarding claim 7, a system according to claim 1, wherein said node information management system is a node information collection system (Snowdon: col. 6, lines 60-65; col. 11, line 65- col. 12, line 8).

Regarding claim 8, a system according to claim 1, wherein said node information memory unit and said backup node information memory unit provided for each of said nodes are constructed by a single memory device (Snowdon: col. 11, lines 53-63).

Regarding claim 9, a system according to claim 1, wherein each of said nodes further has a node information forming unit which forms said predetermined information regarding the node itself (Snowdon: col. 11, lines 33-37).

Regarding claim 10, a system according to claim 1, wherein said node information collecting apparatus has a node information collecting unit which collects said predetermined information stored in said node information memory unit of each of said nodes (Snowdon: col. 4, lines 30-38) and said predetermined information stored in said backup node information memory unit (Snowdon: col. 4, lines 30-38).

Regarding claim 13, a system according to claim 1, wherein said predetermined information regarding each of said nodes includes communication quality information of

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said node, node setting information, and information regarding the user (Snowdon: col. 11, lines 55-63; identifying information and user information).

Regarding claim 15, a node as one of a plurality of nodes each of which is connected through a network so that they can communicate with each other (Snowdon: col. 6, lines 60-66) and in which predetermined information regarding said node is collected by a node information collecting apparatus connected to said node so that it can communicate therewith (Snowdon: col. 11, lines 65- col. 12, line 8), comprising:

- a node information memory unit which stores said predetermined information regarding said node itself which was formed by said node itself every formation of said predetermined information (Snowdon: col. 11, 53-63; identifies the node and its properties);

- a node information transmitting unit which supplies said predetermined information stored in said node information memory unit of the node itself to another node connected to the node itself through said network (Snowdon: col. 11, 53-63; exchanges messages with other nodes); and

- a backup node information memory unit which stores said predetermined information supplied from said node information transmitting unit of said another node as backup information (Snowdon: col. 11, 53-63; memory for storing the exchanged messages).

Regarding claim 16, a node according to claim 15, further comprising a node information forming unit which forms said predetermined information regarding the node itself (Snowdon: col. 11, lines 33-37).

Regarding claim 17, a node according to claim 15, wherein when said predetermined information which was newly supplied from said node information transmitting unit of said another node cannot be stored into said backup node information memory unit of the node itself (Snowdon: col. 4, lines 30-38), in order to assure an area for storing said

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information into said backup node information memory unit, said node can delete said predetermined information which has already been transferred through said plurality of other nodes and stored in the backup node information memory unit (Snowdon: col. 13, lines 34-60), that is, said predetermined information which has been transferred via a larger number of nodes than the number of nodes through which said newly supplied predetermined information has been transferred (Snowdon: col. 13, lines 34-60).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 6, 11-12 are rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,671,737 by Snowdon et al in view of U.S. Patent No. 6,594,786 by Connelly et al.

Regarding claim 6,

The Snowdon reference teaches a system according to claim 1.

The Snowdon reference does not explicitly state a loss of information.

The Connelly reference teaches when there is a loss in information stored in said node information memory unit of each of said nodes (Connelly: col. 10, lines 51-62), a node information collecting apparatus compensates the information with the loss of said node with said predetermined information stored in said backup node information memory unit of another node, thereby forming said node information of each of said nodes (Connelly: col. 7, lines 15-25).

The Connelly reference further teaches the invention measures availability so that critical information can be collected to improve effectiveness (Connelly: col. 3, lines 13-19) and recovery of lost data (Connelly: col. 10, lines 60-62).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the node information management system as taught by Snowdon while restoring lost information as taught by Connelly in order to restore the lost information and monitor nodes to improve effectiveness (Connelly: col. 10, lines 60-62, col. 3, lines 13-19).

Claims 11-12 are rejected under the same rationale given above. In the rejections set fourth, the examiner will address the additional limitations and point to the relevant teachings of Snowdon et al and Connelly et al.

Regarding claim 11, a system according to claim 1, wherein said node information collecting apparatus periodically collects said information from each of said nodes on the basis of a polling signal from said apparatus by a polling method by which said apparatus communicates with each of said nodes at a predetermined period (Snowdon: col. 4, lines 31-38; periodically). (Connelly: col. 3, line 28; col. 6, lines 52-59; col. 2, lines 20-34)

Regarding claim 12, a system according to claim 1, wherein said node information collecting apparatus periodically collects said information by an active program method by which a predetermined packet signal which is periodically transmitted from said apparatus to said network (Snowdon: col. 4, lines 31-38; periodically), that is, a predetermined packet signal which circulates through each of said nodes in said network is received. (Connelly: col. 3, line 28; col. 6, lines 52-59; col. 2, lines 20-34)

Claim 14 is rejected under 35 U.S.C. 103(a) as being unpatentable by U.S. Patent No. 6,671,737 by Snowdon et al in view of U.S. Patent No. 6,594,786 by Connelly et al.

Regarding claim 14,

The Snowdon reference teaches a system according to claim 13, wherein said node setting information has: routing information showing a transfer route of the packet to be transferred (Snowdon: col. 10, lines 53-67; source and destination; col. 9,

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lines 38-43; routes); and transfer information showing a transfer method of the packet (Snowdon: col. 10, lines 24-37), and

said user information has: connecting time information in which a time during which the user who communicates through each of said nodes is connected to said node for the purpose of communication is shown every said user (Snowdon: col. 12, lines 24-31).

The Snowdon reference does not explicitly state packet delay.

The Vaid reference teaches communication quality information has: packet delay information showing a mean time which is required for each packet process in said node in every predetermined unit time (Vaid: col. 5, lines 44-56); packet loss information showing the number of lost packets in said node in every predetermined unit time (Vaid: col. 5, lines 66- col. 6, line 4); and traffic information showing a packet inflow amount to said node in every predetermined unit time (Vaid: col. 5, lines 30-43; col. 6, lines 2-12),

and charge information showing a communication fee which is charged for every said service (Vaid: col. 26, lines 44-49).

The Vaid reference further teaches the invention monitors traffic on an enterprise level to improve link efficiency which and congestion avoidance (Vaid: col. 3, lines 62- col. 4, line 9).

Therefore it would have been obvious at the time of the invention to one of ordinary skill in the art to create the node information management system as taught by Snowdon while using Quality information as taught by Vaid in order to avoid congestion and improve link efficiency (Vaid: col. 3, lines 62- col. 4, line 9).

Prior Art

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

U. S. Patent No. 6,438,707 issued to Ronstrom contains a fault tolerant computer system with node information replicated on backup systems..

Conclusion


Any inquiry concerning this communication or earlier communications from the examiner should be directed to Benjamin R Bruckart whose telephone number 571-272-3982. The examiner can normally be reached on 8:00-5:30 PM with every other Friday off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hosain Alam can be reached on 571-272-3978. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-3982.

Benjamin R Bruckart
Examiner
Art Unit 2155
brb
1/14/05

brb


SALEH NAJJAR
PRIMARY EXAMINER